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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,330	07/30/2003	Peter P. Antich	UTSW:1041	8756
34725	7590	03/27/2006	EXAMINER	
CHALKER FLORES, LLP			JAWORSKI, FRANCIS J	
2711 LBJ FRWY			ART UNIT	
Suite 1036			PAPER NUMBER	
DALLAS, TX 75234			3737	

DATE MAILED: 03/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/630,330

Applicant(s)

ANTICH ET AL.

Examiner

Jaworski Francis J.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 and 36-89 is/are pending in the application.
- 4a) Of the above claim(s) 1-34, 63-86 and 89 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 36-47, 50-60, 87 and 88 is/are rejected.
- 7) ☒ Claim(s) 48, 49, 61 and 62 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Claims 36 – 62 and 87-88 are present for examination. Claim 35 has been cancelled; claims 1 – 34, 63 – 86 and 89 stand withdrawn from consideration at this time.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 36 – 43, 50-53, 55 are rejected under 35 U.S.C. 103(a) as being obvious based upon Larson III (US5229933) and Antich et al (US5197475, of record with the IDS filed 5/23/05), the former of which teaches a transducer 408 comprising a

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transmitter and concentric receiver array which simultaneously detects reflected target ultrasound onto its receive subarray portion focused ahead of the array and which which preferably may comprise 16 -49 elements per col. 4 discussion and is housed in a housing with probe window 112. In consideration of the incompleteness of claim 42 noted above, the Larson transducer would be capable of focus such that the stated +/- 45 degrees is expandable and would be capable of acoustic velocity measurement if connected to suitable focusing and measurement apparatus, these features being non-limiting on the concave phased array itself. , Where Larson II provides literal teaching of separate concentric array receivers with common focus to the transmitter, Antich et al Fig. 4 and elements 66 are similarly directed to a concentric (concave) annular array for which at least individual transducers act to energize for transmit and all transducers may variously serve to receive, but which are adapted for critical angle spectral determinations via processor 26 and inter alia the flow chart of Fig. 5E . In the alternative, Antich et al may serve as the primary teaching with Larson II in supplement for teaching annular energizations of the scanning array for focusing purposes.

Claims 44-45, 56-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Larson and Antich et al as applied to claim 36 above, and further in view of Law et al (US5762066) since whereas the former does not describe containment and window materials it would have been obvious in view of the latter col. 3 lines 38-40 to use water couplant and a latex containment membrane to interface a transducer to biologic tissue.

Claim 46, 58, 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Larson and Antich et al as applied to claim 36 above, and further in view of Barthe et al

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(US6036646) Whereas the former is silent as to computer control of mechanical scanning, it would have been obvious in view of the latter's arm 70 and col. 3 discussion to perform scanning with a concave transducer via computer control of a scanning arm in a waterbath containment.

Claims 47, 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Larson and Antich et al, further in view of Law et al as applied to claim 44 above, and further in view of Ohtomo (US5895357). Whereas the former do not use a housing pressure sensor, it would have been obvious in view of element 62 of the latter to do so since excess pressure is also uncomfortable for the patient apposed to the device and disturbs measurements as well.

Allowable Subject Matter

Claims 48 – 49, 61-62 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Amendment Arguments

Amendatory claim language has brought the claims into conflict with Antich et al considered as a variant of concentric array scanner which operates in conjunction with a critical angle processor 26 which is adapted to calculate reflected spectra from the receivers at various angles so as to produce the critical angles for a typical cortical and trabecular bone.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

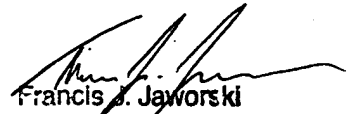
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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication should be directed to Jaworski Francis J. at telephone number 571-272-4738

FJJ:fjj

031606


Francis J. Jaworski
Primary Examiner